

William (Bill) J. Lyons, Jr.
Secretary

Details of the Pricing Formulas

(Part 1 of 4)

by Dr. Eric Erba, CDFA Senior Agricultural Economist

This article is a continuation of an informational series of articles on milk pricing in California.

In last month's California Dairy Review (CDR), we explained how pool prices are generated and made a distinction between pool prices and class prices — class prices determine how money is paid into the pool by processors. In the next four issues of the CDR, we will review the details of California's five minimum pricing formulas.

On a total solids basis, Classes 4a and 4b comprise the largest share of the milk pooled in California. Class 4b (hard cheeses) and Class 4a (butter and powder) make up about 45% and 30%, respectively, of the milk solids pooled. Consequently, the class prices for these two classes will have the most impact on the revenue in the pool each month.

The Class 4a pricing formula is the least complex of all of the pricing formulas and, as such, we will use it to begin the discussion. Class 4a prices are calculated retroactively, meaning that the prices are calculated "after-the-fact." For example, the February Class 4a price is not calculated until the end of February.

Determining the minimum price that California processors must pay for Class 4a involves four steps:

1. Calculate the simple average of the Chicago Mercantile Exchange (CME) grade AA butter price. For the calculation, price data released from the 26th of the prior month to the 25th of the current month is used (for example, data from January 26th to February 25th is used to calculate the February price).
2. Obtain the weighted average price for California-produced nonfat dry milk (NFDM), which is announced by the Department of Food and Agriculture every month.
3. Adjust the butter and NFDM commodity prices by manufacturing cost allowances and yields.
4. Calculate the equivalent hundredweight price for milk testing 3.5% fat and 8.7% solids-not-fat.

The following schematic shows how all of the elements of the pricing formula interact. With the

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JANUARY MILK PRODUCTION

Milk production in California for January 2003 totaled 2.9 billion pounds, up 5.0 percent from January 2002. USDA's estimate for U.S. milk production for January 2003 in the 20 major dairy states is 12.5 billion pounds, up 1.8 percent from January 2002. Production per cow in the 20 major states averaged 1,608 pounds for December, which is 17 pounds above January 2003. ☀

MINIMUM CLASS PRICES

Statewide average hundredweight prices

Class	February	March
1	\$12.14	\$12.03
2	\$10.70	\$10.70
3	\$10.53	\$10.53
4a	\$ N/A	----
4b	\$ N/A	----

FEDERAL ORDER AND CALIFORNIA MINIMUM CLASS 1 PRICES

Average Hundredweight Prices

Regions	February	March
Phoenix, Arizona	\$12.58	\$N/A
Southern California	\$12.27	\$12.17
Portland, Oregon	\$12.13	\$N/A
Northern California	\$12.00	\$11.89
Boston (Northeast)	\$13.48	\$N/A

QUOTA TRANSFER SUMMARY

For January 2003, six dairy producers transferred 4,835 pounds of SNF quota. January quota sales averaged \$525 per pound of SNF (without cows), an average ratio of 2.41. For February 2003, seven dairy producers transferred 12,719 pounds of SNF quota. February quota sales averaged \$507 per pound of SNF (without cows), an average ratio of 2.37. ☀

ALFALFA UPDATE: FEBRUARY

Northern California: During February, Premium and Supreme alfalfa tested light or was not well-tested with light demand and limited supplies. Fair and Good alfalfa was steady in light test with supplies moderate. Retail and Stable hay was steady with light to moderate demand and supplies.

Southern California: Early January had Supreme and Premium alfalfa steady with new crop hay becoming available. Fair and Good alfalfa was not well tested with light demand. A rain storm this month caught a fair amount of hay down and more rain was expected later in the month. Retail and Stable hay was steady with light to moderate demand. Exporters were fairly quiet, still looking for more grass hays. ☀

SUPREME HAY PRICES

Statewide average prices per ton

Area	1/31	2/7	2/14	2/21
Petaluma	\$155-165	\$155-160	-----	-----
North Valley ¹	\$145-155	\$145-150	\$145	\$145-148
South Valley ²	\$143-168	\$143-160	\$143-155	\$143-151
Chino Valley	\$128-130	-----	\$125-131	\$125-130

¹North Valley is Escalon, Modesto and Turlock areas.

²South Valley is Tulare, Visalia and Hanford areas.

ALFALFA HAY SALES/DELIVERY

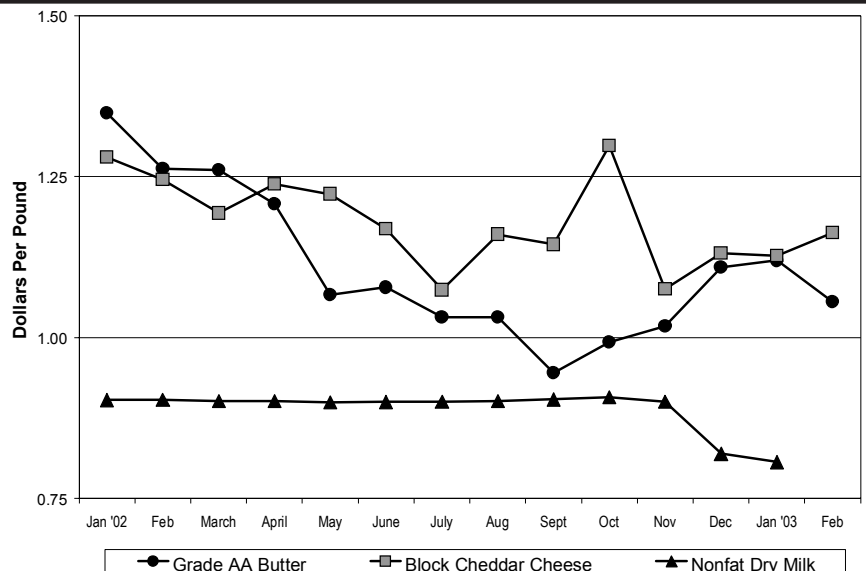
	January	February
Tons Sold ¹	83,725	76,278
Tons Delivered ²	33,125	38,175

¹For current or future delivery.

²Contracted or current sales.

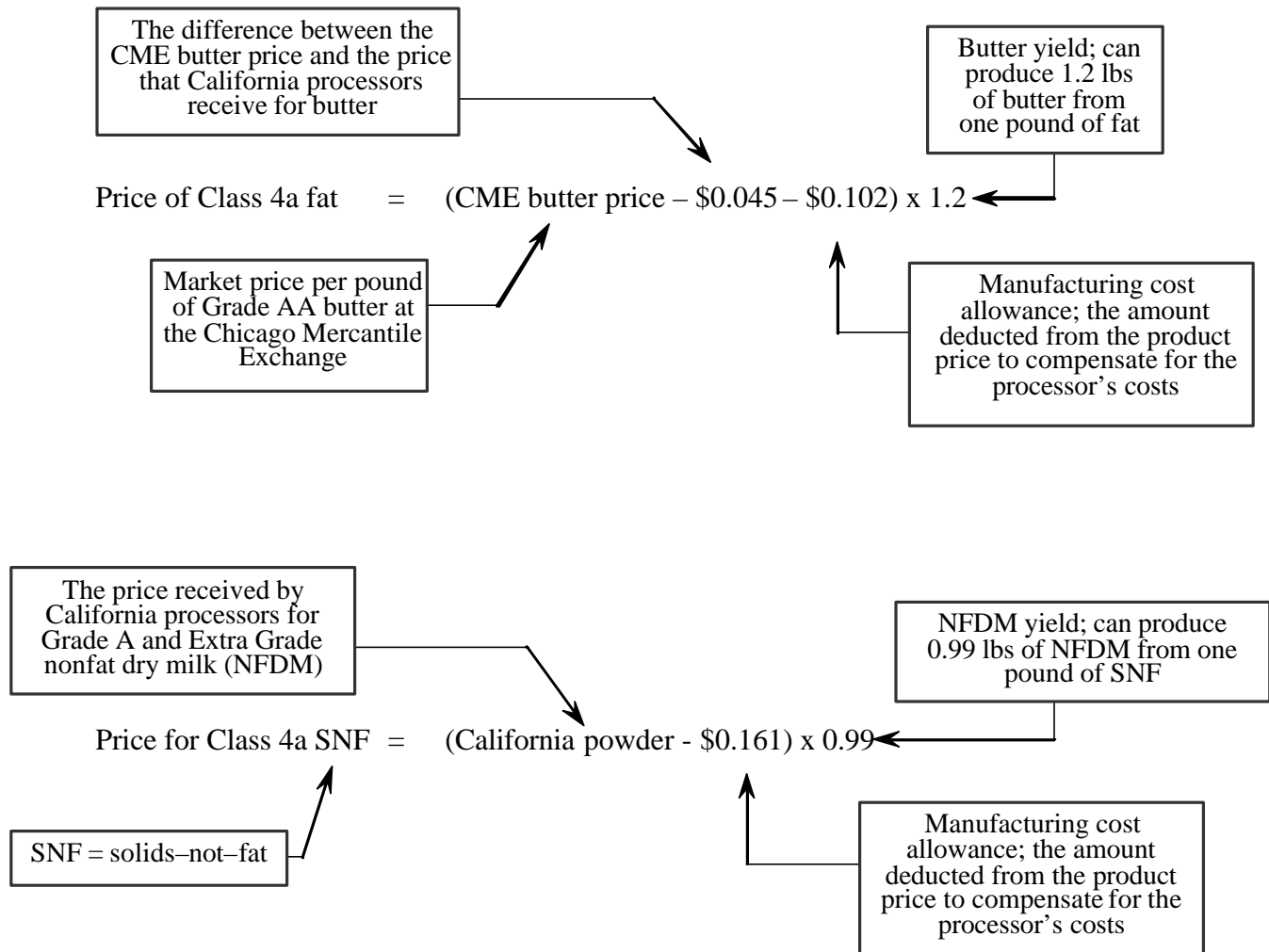
Alfalfa hay sales, deliveries and Supreme quality prices per ton, delivered to dairies, as reported by the USDA Market News Service, Moses Lake, WA, (509) 765-3611, <http://www.ams.usda.gov/marketnews.htm>

Grade AA Butter, Block Cheddar Cheese, and Nonfat Dry Milk Prices Used in the Calculation of California Class 1 Milk Prices



Pricing Formulas - Continued from Page 1

exception of the butter or powder price series that are referenced, all factors in the formula are constant from month to month. However, the factors may be amended through a public hearing.



Once the fat and SNF price have been calculated, the Class 4a price per hundredweight is easily obtained. The hundredweight price uses a standardized milk test, containing 3.5% fat and 8.7% SNF. Therefore, the Class 4a hundredweight price is:

$$(3.5 \times \text{price of Class 4a fat}) + (8.7 \times \text{price of Class 4a SNF})$$

In the next issue of the CDR, look for a review and explanation of the Class 4b pricing formula. ☀



CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Bovine Tuberculosis in California

The California Department of Food and Agriculture (CDFA), United States Department of Agriculture (USDA), and the cattle industry are working together to control and eradicate bovine tuberculosis (TB) from California.

Bovine TB was confirmed in a Tulare county dairy herd in May 2002. The herd was quarantined by the CDFA, tested for TB three times, and all test positive cattle were destroyed. All cattle sold from or associated with the herd over the last five years have been traced and tested. In November, the whole herd was sent to slaughter and the property thoroughly cleaned and disinfected. The premise was released from quarantine after approval of the state TB epidemiologist.

A TB-positive cow was found at a California slaughterhouse in September 2002. The investigation into the source of this cow is ongoing, but indicates a dispersed beef herd from Tulare County.

In October 2002, a single reactor was identified in a Tulare County dairy herd tested while investigating the first infected dairy. The dairy was quarantined. While preliminary laboratory results are positive for TB, final culture results from a USDA laboratory are pending. The herd was classified as an infected herd in December 2002.

Update

The owner of the second infected herd has requested depopulation, and funding is being sought.

A TB-positive cow was found at a California slaughterhouse in late December 2002. The herd of origin was tested and, although culture results are incomplete, this Kings County dairy herd has been classified as California's third TB infected herd.

To date, 167,138 cattle in 111 herds have been tested for bovine TB since this investigation began, and nearly 8,000 cattle have been slaughtered during this investigation.

Cumulative Since May 13, 2002	
Herds tested	111
Number animals tested	167,138
Number of herds quarantined	3
Number cattle destroyed	7,922
Average number field personnel	12

As of February 2003, we recommended a TB test on exhibition dairy cattle more than six months of age from Tulare, Kings and Fresno counties.

Since June 2002, all dairy breeding animals more than six months of age leaving California need a negative TB test within 30 days of movement. This requirement does not apply to beef cattle at this time.

Impact on California's TB-Free Status

The USDA assigns various status levels to a state under the bovine TB eradication program: Accredited Free, Modified Accredited Advanced, Modified Accredited, Accreditation Preparatory or Non-Accredited.

The USDA will downgrade California's status from TB-Free to Modified Accredited Advanced because a second TB-affected herd was identified within 48 months of the first herd. *The State status will change when the regulation is published in the Federal Register.*

This new status will require all California breeding cattle to have official identification and a negative TB test within 60 days of interstate movement OR originate from a TB Accredited-Free herd (mandatory annual TB testing) OR move directly to slaughter.

If more than three infected herds are found for each of the most recent two years, California may be downgraded to Modified Accredited. In this situation, breeding cattle would need a negative whole herd TB test in addition to individual TB tests and official identification to move out of California.

The USDA is reviewing its regulations used to determine a State's TB status, and will publish a new regulation this year.

Plans

California is reviewing its TB control and surveillance options with the cattle industry. Current plans being discussed include:

- Test all dairy herds in Tulare, Kings, and Fresno counties.
- Require a TB test before importing dairy cattle into California.
- Restrict Mexican cattle to "pre-approved" pastures.
- Develop agreements with neighboring states to ease annual TB testing requirements on "commuter cattle".

CDFA Animal Health Branch Offices

Sacramento (HQ)	916-654-1447
Modesto	209-491-9350
Ontario	909-947-4462
Redding	530-225-2140
Tulare	559-685-3500
Tulare TB Task Force	559-687-1158

CDFA Milk and Dairy Foods Control Branch Offices

Stockton	209-466-7186
Oakland	510-622-4810
Fresno	559-445-5506
Ontario	909-923-9929

USDA/APHIS/VS


916-857-6170 or 877-741-3690

Monensin-Medicated Feed – Prohibited for Lactating Dairy Cows

Monensin Sodium is formulated for the manufacture of cattle feed under the trade name Rumensin 80, a “Type A” medicated article. It is included in feed for the prevention and treatment of coccidiosis, an intestinal disease caused by a rapidly multiplying protozoan. The disease affects a variety of animal species but the causative agent is very host specific; only cattle coccidia will cause the disease in cattle. The FDA approval for Monensin use in cattle feed specifies the permissible drug combinations and safe use levels for purposes of prevention, treatment, improving feed efficiency, and increasing the rate of weight gain in feedlot and pasture cattle including dairy and beef replacement heifers.

It is important that feed manufacturers, distributors, and consumer-buyers understand that federal laws require the caution or warning statement “Do not feed to lactating dairy cows” on the labeling of Monensin-medicated cattle feed. The labeling shall indicate the type of animal for which the feed is intended, use level, indications for use, and all other warning or caution statements required for the safe use of the feed. All medicated feed labels shall comply with federal laws and the requirements specified in Sections 2700, 2701, and 2702 of the California Code of Regulations.

The feeding of monensin-medicated feed to lactating dairy animals is not in accordance with the Food and Drug Administration (FDA) approval of Monensin Sodium in cattle feed. Title 21 of the Code of Federal Regulations Part 558.355 specifically prohibits the use of Monensin-medicated feed for lactating dairy cows and veal calves. Failure to comply with the approved uses of livestock drugs and medicated feed also violate the provisions of the California Food and Agricultural Code and can result in regulatory actions and penalties.

In addition, Section 15072.5 of the Food and Agricultural Code and Section 2766 of the California Code of Regulations, require livestock producers to ensure that their operations follow label directions and to use medicated feed safely in compliance with the laws and regulations. The Department of Food and Agriculture’s Agricultural Commodities and Regulatory Services Branch may be contacted at (916) 445-0444 should you have any concerns about this issue and the safety of the feed you use. 

Milk Producers Security Trust Fund Board Appointments


The Secretary of Food and Agriculture has announced appointments to the Milk Producers Security Trust Fund Board.

The newly appointed members are:

Richard Cotta, California Dairies, Inc. –
Representing Cooperatives
Alan Pierson, Land O’ Lakes, Inc. – Representing
Cooperatives
Sharon Hale, Crystal Cream and Butter Company
– Representing Processors
Bill Van Leeuwen – Representing Producers

The Secretary reappointed Mr. Cotta and Mr. Van Leeuwen to another three-year term on the Board. The Secretary also appointed Ms. Hale to a three-year term. Mr. Pierson was appointed to a two-year term of office in order to ensure that the two positions representing cooperatives do not have terms ending in the same year in the future.

The Board advises the Secretary on matters regarding the administration of the Milk Producers Security Trust Fund.

Should you have any questions regarding the appointments to the Board, please contact Bob Maxie or Jackie Juarez. 

National Dairy Situation and Outlook – USDA Estimates

Milk Production and Cow Numbers

Monthly: Compared to 2002, USDA estimates that overall milk production across the U.S. was up 1.8% in January, led by New Mexico's 6.7% growth in milk production (on 20,000 more cows and no increase in pounds per cow). California's estimated production was up 5.0% (on 57,000 more cows and 25 more pounds per cow). Among other western states, Arizona was up 4.5%; Idaho up 3.8%; and Washington up 2.8%. Two of the top 10 states reported decreases: Minnesota -2.7%, and Pennsylvania -1.4%.

Quarterly: For the fourth quarter of 2002 compared to the fourth quarter of 2001, U.S. milk cow numbers were up 0.5% at 9.155 million, production per cow was up 1.6%; the net effect was a 2.2% increase in milk production to 41.7 billion pounds. USDA projects that for the first quarter of 2003 compared to the fourth quarter of 2002, U.S. milk cow numbers will decrease 23,000 cows to 9.125 million cows, production per cow will be up 3.7%; the net effect would be a 3.4% increase in milk production to 42.9 billion pounds.

Milk Prices

Comparing the fourth quarter of 2002 to the third quarter of 2002, U.S. average milk prices were up \$0.50/cwt. to \$11.93/cwt. USDA projects that for the first quarter of 2003, U.S. average milk prices will be down \$0.25-0.50/cwt. compared to the fourth quarter; including a \$0.20-0.50/cwt. Class 4b price decrease and a \$0.40-0.75/cwt. Class 4a price decrease.

Utility Cow Prices

Comparing the fourth quarter of 2002 to the third quarter of 2002, average U.S. utility cow prices were down \$2.00/cwt. to a national average of \$36/cwt. USDA projects that utility cow prices will rise to \$39-41 levels in the first quarter of 2003.

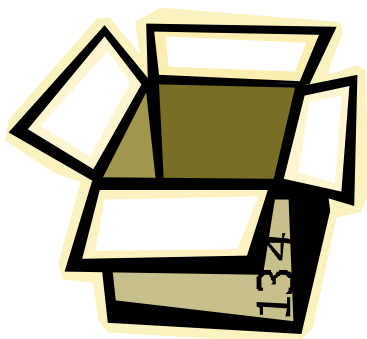
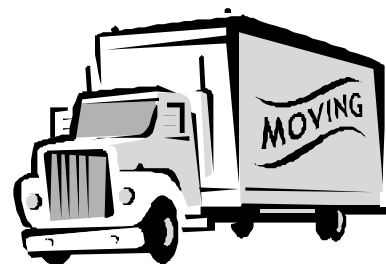
Information from the USDA-NASS publication "*Milk Production*" and the USDA-ERS publication: "*Livestock, Dairy, and Poultry Outlook*." 

Dairy Marketing Branch moves

The Division of Marketing Services, including the Dairy Marketing Branch, (DMB) is being relocated to the Downtown Mall office space at 560 J Street. The mailing address will remain 1220 N Street, Sacramento, CA 95814, however, the DMB will be physically located at 560 J Street, Suite 150. Phone and fax numbers will be referred to the new numbers for a few months, however, please make note of the new numbers that will be in use as of March 3, 2003:

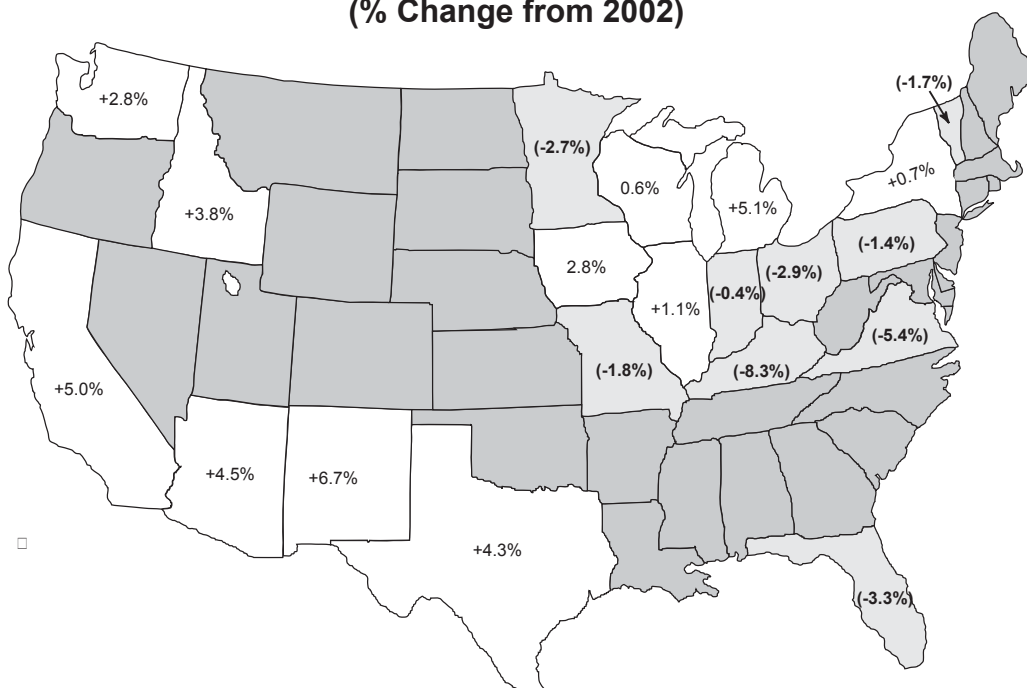
Dairy Marketing Branch phone (916) 341-5988 and fax (916) 341-6697.

Milk Pooling Branch phone (916) 341-5901 and fax (916) 341-5995.



The milk price information phone number 1-800-503-3490 will remain the same and the (916) 442-MILK price information line will also remain unchanged.

January Milk Production in the Top 20 States (% Change from 2002)



For the U.S. overall, comparing January 2003 to January 2002:

- Milk production during January was up 1.8%
- The number of cows on farms was 9.153 million head, up 36,000 head
- Production per cow averaged 1,591 pounds, 22 pounds more than January 2002

Milk Production Cost Index for California

Month	Del Norte / Humboldt		North Bay		North Valley		South Valley		Southern California		Statewide Weighted Average	
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
<i>Dollars per Hundredweight</i>												
January	14.68	15.39	13.66	14.17	12.60	12.97	12.09	12.90	13.04	13.10	12.5165	13.0110
February	14.68	15.39	13.66	14.17	12.60	12.97	12.09	12.90	13.04	13.10	12.5165	13.0110
March	12.66	13.18	13.10	14.11	12.39	12.50	12.00	12.49	13.20	12.98	12.3930	12.6245
April	12.66	13.18	13.10	14.11	12.39	12.50	12.00	12.49	13.20	12.98	12.3930	12.6245
May	11.43	11.59	13.15	13.36	12.66	12.50	12.39	12.94	13.57	13.05	12.7255	12.8019
June	11.43	11.59	13.15	13.36	12.66	12.50	12.39	12.94	13.57	13.05	12.7255	12.8019
July	11.75	11.36	13.50	13.82	12.75	12.59	12.95	13.57	13.91	13.42	13.0678	13.1835
August	11.75	11.36	13.50	13.82	12.75	12.59	12.95	13.57	13.91	13.42	13.0678	13.1835
September	12.89	12.22	13.57	14.37	13.04	12.89	12.99	13.39	14.19	13.70	13.2516	13.2803
October	12.89	12.22	13.57	14.37	13.04	12.89	12.99	13.39	14.19	13.70	13.2516	13.2803
November	14.23		14.09		12.86		12.69		13.45		12.9463	
December	14.23		14.09		12.86		12.69		13.45		12.9463	

HUNDREDWEIGHT POOL PRICES

Month	Quota	Overbase
September '01	\$16.95	\$15.25
October	\$14.71	\$13.01
November	\$13.67	\$11.97
December	\$12.93	\$11.23
January '02	\$13.18	\$11.48
February	\$12.53	\$10.83
March	\$12.37	\$10.67
April	\$12.41	\$10.71
May	\$12.06	\$10.36
June	\$11.60	\$ 9.90
July	\$11.28	\$ 9.58
August	\$11.48	\$ 9.78
September	\$11.58	\$ 9.88
October	\$11.84	\$10.14
November	\$11.44	\$ 9.74
December	\$11.48	\$ 9.78
January '03	\$11.40	\$ 9.70

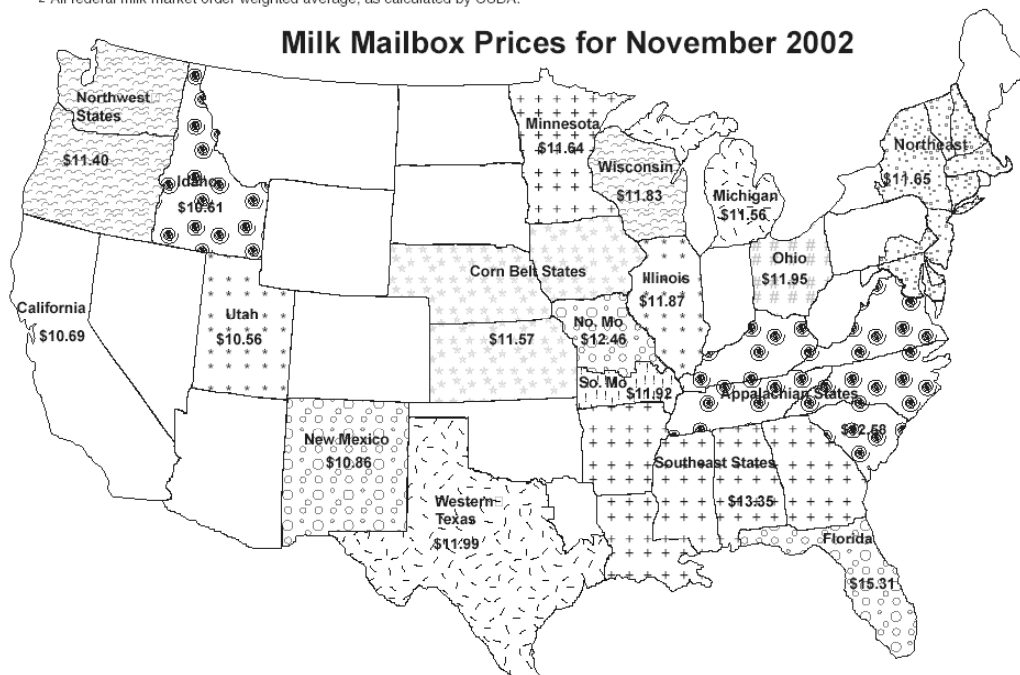
Milk Mailbox Prices in Dollars per Hundredweight

	May	June	July	August	September	October	November
California ¹	\$10.98	\$10.44	\$10.11	\$10.35	\$10.58	\$10.94	\$10.69
USDA ²	\$11.83	\$11.33	\$10.95	\$11.18	\$11.40	\$12.00	\$11.75

¹ California mailbox price calculated by CDFA.

² All federal milk market order weighted average, as calculated by USDA.

Milk Mailbox Prices for November 2002



In November 2002, mailbox milk prices for selected reporting areas in Federal milk orders averaged \$11.75 per cwt., \$0.24 less than the revised figure for the previous month. Most of this month-to-month decrease results from generally lower Federal milk order minimum producer prices. The component tests of producer milk in November 2002 were: butterfat, 3.81%; protein, 3.12%; and other solids 5.69%. On an individual reporting area basis, mailbox prices decreased in all reporting areas except four, and ranged from \$15.31 in Florida to \$10.56 in Utah. In November 2001, the Federal milk order all-area average mailbox price was \$14.25, \$2.50 higher.